

**Aihua Bian, MPH**  
Aihua.bian@Vanderbilt.edu  
Department of Biostatistics  
Campus: S-2323 MCN, Mail: 1161 21st Ave South  
Nashville, TN 37232-2158  
Phone: (615) 322-2052

## **EDUCATION**

**University of Oklahoma Health Sciences Center**, Oklahoma City, OK  
Master of Public Health in Biostatistic, August 2004  
**Yang Zhou University**, Yangzhou, P.R.China  
Bachelor of Science, July 1996; Master of Science, July 1999

## **COMPUTER SKILLS**

**Operating Systems:** Linux and Windows.  
**Statistical Software:** R, SAS, SPSS, Matlab, Epi-info

## **WORK EXPERIENCE**

*Biostatistician I*, 04/09-Present

**Vanderbilt University School of Medicine**, Nashville, TN

### **Research**

- Collaborate with a variety of clinical investigators on projects pertaining to rheumatoid arthritis, systemic lupus erythematosus, general nephrology and HIV/AIDS.
  - Collaborate on data integrity, analysis and presentation.
  - Methods used daily: descriptive statistics including graphs, linear regression, mixed-effect model and logistic regression.
  - Prepare sample size and power justification for grant statistical section.
  - Attend regularly departmental meeting, biostatistic clinic and R clinic.

### **Teaching Activities**

September 2009: Teaching Assistant, Epidemiology I (Dr. Shintani's section, MSCI), 4 credit-hour required class for the Master of Science in Clinical Investigation program, Vanderbilt University School of Medicine.

*Biostatistical Consultant I*, 01/06-04/09

**University of Texas Southwestern Medical Center at Dallas**

- Statistical analysis and reports for presentations, posters, abstracts and manuscripts.
- Clinical protocol review assistance.
- Sample size and power estimation for grant statical section.
- Provided input on database design for clinical trial and observational studies.
- Assisted with methodological research related to goodness-of-fit tests for ordinal logistic regression models.

*Research Assistant II*, 08/04-01/06:

**University of Oklahoma Health Sciences Center**

- Utilized SAS to manage, clean, combine datasets for studies, and provided data quality report monthly.
- Analyzed data and prepared statistical section for presentations and reports.
- Prepared biweekly and monthly progress reports for Clinical Trial Steering Committee meeting and conference calls
- Assisted in design of questionnaires and procedures to collect, maintain and verify data.

*Graduate Research Assistant, 02/03-07/04:*

**University of Oklahoma Health Sciences Center**

- Prepared summary statistics for proposals and presentations.
- Assisted in data analysis and development of SAS program codes in enhancing output and improving efficiency.
- Provided the lab data quality reports for the data safety monitoring board.
- Managed/documented/checked lab, questionnaire data for a large cohort study.

*Graduate and Teaching Assistant, 01/01-05/02:*

**University of Oklahoma**

- Performed research on the interactions between terrestrial ecosystems and climate.
- Organized lab for students and responsible for grading.

*Instructor, 09/99-12/00:*

**Shanghai Jiaotong University, P.R.China**

- Biostatistics and Computer Applications
- Introduction to Economic Statistics.

## **CONTINUING EDUCATION**

### **Courses, Workshops and Seminars**

- Oct, 2009, An Introduction to the Fundamentals & Functionality of the R Language, Vanderbilt Kennedy Center Statistics and Methodology Core Workshop, 2009
- October 29, Elizabeth Koehler. Resampling: trick or treat?
- August 20th Dr.Irene Feurer. A comparison of exploratory and confirmatory approaches to principal components analysis.
- June 18th Dr.Jeffrey Blume. A discussion on ROC curves.
- May 15th Dr.Frank Harrell. A discussion on model validation, penalty and shrinkage analysis.
- Apr 30th Nate Mercaldo. Beamer me Up Scotty: An introduction to making handouts, posters and presentations in Latex.
- Introduction to SPSS, UT Southwestern Medical Center at Dallas, 2008
- Advanced Programming in SAS, SAS live web class, 2008.
- Advanced Topics in SAS, UT Southwestern Medical Center at Dallas, 2008
- Longitudinal Data Analysis with discrete & continuous responses, SAS live web class, 2007
- SQL Processing with SAS, SAS Live Web class, 2006

## **PUBLICATIONS**

1. Xie XJ and **Bian A** (2009) A SAS package for evaluating Logistic and proportional odds model fit. JP Journal of Biostatistics. (Accepted)
2. Xie XJ and **Bian A** (2009) Increasing the power: Goodness-of-fit tests for ordinal logistic regression models with continuous covariates. JP Journal of Biostatistics. 3(3): 225-246.
3. Feramisco JD, Leitenberger JJ, Redfern SI, **Bian A**, Xie XJ, Resneck JS (2008) A "Gender-Gap" in the Dermatology Literature: Manuscript Authorship Trends over Three Decades. J Am Acad Dermatol. 2009 Jan;60(1):63-9.
4. Euhus DM, Bu D, Ashfaq R, Xie XJ, **Bian A**, Leitch AM, Lewis CM. DNA Methylation in Benign Breast Epithelium: A Molecular Record of Proliferative and Involutional History. Cancer Epidemiol Biomarkers Prev. 2008 May; 17(5): 1051-1059
5. Gao B, Xie XJ, Huang C, Shames DS, Chen TT, Lewis CM, **Bian A**, Zhang B, Olopade OI, Garber JE, Euhus DM, Tomlinson GE, Minna JD. RASSF1A Polymorphism A133S Is Associated with Early Onset Breast Cancer in BRCA1/2 Mutation Carriers. Cancer Res. 2008 Jan 1; 68(1):22-5.
6. Euhus DM, Bu D, Ashfaq R, Xie XJ, **Bian A**, Leitch AM, Lewis CM. Atypia and DNA methylation

in nipple duct lavage in relation to predicted breast cancer risk. *Cancer Epidemiol Biomarkers Prev.* 2007 Sep; 16(9):1812-21.

7. Elayadi AN, Samli KN, Prudkin L, Liu YH, **Bian A**, Xie XJ, Wistuba II, Roth JA, McGuire MJ, Brown KC. A peptide selected by phage display biopanning identifies expression of the integrin  $\alpha\beta 6$  as a prognostics biomarker for lung cancer. *Cancer Res.* 2007 Jun 15; 67(12):5889-95.
8. He Y, Liu Y, Chen Q, **Bian A**. Thermo tolerance Related to Anti-oxidation Induced by Salicylic Acid and Heat Hardening in Tall Fescue Seedlings, *Journal of Plant Physiology And Molecular Biology*, 2002, 28(2).
9. He Y, Liu Y, Chen Q, **Bian A**, Chen W. Optimal pH for four antioxidant enzymes in the seedlings of tall fescue and Kentucky bluegrass, *Journal of Nanjing Agricultural University*, 2001, 24(4)
10. Hu X, He Y, Yang X, **Bian A**, Jin H, Influence of Seeding rate of Kentucky Blue Grass and Sod Production in Non-soil-medium, *Journal of Shanghai Agricultural College*, 2000, 18(1)
11. Gu S, Hui D, **Bian A**. The Contraction-Expansion Algorithm and Its Use in Fitting Nonlinear Equation, *Journal of Biomathematics*, 1998, 13(4)
12. Wang Z, Gu Y, Li W, Dong M, **Bian A** The Growth and Development of Endosperm of Maize, *Journal of Jiangsu Agricultural College*, 1997, 18(3)

#### **Manuscript in preparation**

1. Xie XJ, Yan J, and **Bian A** (2009) Phase I design in cancer clinical trials: current practice and future directions. (In preparation)

#### **Abstracts**

1. M. Sean Boger, **Aihua Bian**, Ayumi Shintani, Ginger Milne, Husamettin Erdem, Valerie Mitchell, David W. Haas, Todd Hulan, Sex differences in urine eicosanoids among HIV-infected persons on antiretroviral therapy with low cardiovascular disease risk. CROI 2010 (Submitted)
2. Chad S. Boomershire, Dina Titova, Chongbin Zhu, Annette M. Oeser, M. Wade Calcutt, **Aihua Bian**, Tebeb Gebretsadik, Raymond Johnson<sup>1</sup> and C. Michael Stein, Kynurenine Pathway Activity Linked to Fibromyalgia Fatigue, ACR/ARPH 2009
3. Siriporn Manavathongchai, Young H. Rho, Annette Oeser, **Aihua Bian**, Tebeb Gebretsadik, Yu Asanuma, C. Michael Stein, Determinants of Hypertension in Rheumatoid Arthritis, ACR 2009
4. R. E. Schwarz, **A. Bian**, J. C. Mansour, X. J. Xie (2009) Survival impact of malignant solid histopathologic neoplasm subtypes in the exocrine pancreas. 2009 Gastrointestinal Cancer Symposium
5. R. E. Schwarz, **A. Bian**, J.S. Mansour, X.J. Xie (2008) Malignant Pancreatic Cystic Neoplasms: Histopathologic Subtypes and Associated Survival Outcomes. Abstracts of the 9th Americas Hepatopancreatobiliary Congress (2009).
6. Xie XJ and **Bian A** Goodness-of-fit tests for ordinal response regression models with continuous covariates. (2009) 8th Annual Hawaii International Conference On Statistics, Mathematics And Related Fields, Honolulu, Hawaii. (Accepted)
7. Allada N, Osborne CR, Xie X-J, Ashfaq R, **Bian A**, Tripathy D. (2007) Pathological and clinical outcomes in response to neoadjuvant chemotherapy: a comparison of basal-like, hormone receptor-positive and HER2-positive breast cancers. The 30th Annual San Antonio Breast Cancer Symposium, San Antonio, Texas.
8. Osborne CR, Tripathy D, Allada N, **Bian A**, Xie X-J, Ashfaq R. (2007) High pretreatment cyclin E levels may define a higher risk subset of basal-like breast cancers: in depth immunohistochemical analysis and clinical outcome of neoadjuvantly treated basal-like breast cancers. The 30th Annual San Antonio Breast Cancer Symposium, San Antonio, Texas.
9. Osborne CR, Kannan L, Xie X-J, Ashfaq R, **Bian A**, Tripathy D (2006) Clinical and pathological outcomes of 103 patients with basal-like breast cancers treated with neoadjuvant chemotherapy. The 29th Annual San Antonio Breast Cancer Symposium, San Antonio, Texas.

## Poster

1. **Bian, Aihua**, Luo, Yiqi, Hui, Dafeng, Schime, David, Net ecosystem productivity and atmospheric nitrogen deposition. ESA2002 Annual Meeting.

## PROJECTS PARTICIAPTED(SELECTED)

- Lung Cancer Specialized Programs of Research Excellence (SPORE) (PI:John Minna, MD) National Cancer Institute
- NSCOR: Lung Cancer Pathogenesis and HZE Particle Exposure (PI: John Minna, MD) NASA
- UT Southwestern Medical Center Small Animal Imaging Program (PI:Ralph P Mason, PhD) NCI
- Ultra-Sensitive MR Probes for Early Diagnosis of Lung Cancer (PI: Jinming Gao, PhD) NIH
- The efficacy of Aloxi in the treatment of intraperitoneal chemotherapy induced nausea and vomiting in advanced ovarian cancer (PI: Karen Nishida, MD) MGI Pharma
- A randomized phase II study of sorafenib in combination with high dose chemoradiation in patients with stage IIIA/B non-small cell lung cancer (NSCLC) (PI: Hak Choy, MD) UTSW
- Phase I/II trial of sorafenib and paclitaxel as first or second-line therapy for measureable metastatic HER2-negative breast cancer (PI: Barbara Haley, MD & Debu Tripathy, MD) UTSW
- Novel Agents for Detecting/Monitoring of Bone Metastasis (PI: Xiankai Sun, PhD) National Cancer Institute
- Classification of DNA Methylation Patterns in Benign and Malignant Breast Epithelium (PI: David Euhus, MD) Department of Defense
- Strong Heart Study (Oklahoma Center and Coordinating Center PI: Elisa T. Lee) National Heart, Lung, and Blood Institute
- Stop Atherosclerosis in Native Diabetics Study (Co-Investigator, SANDS Data Coordinating Center: Elisa T. Lee) National Heart, Lung, and Blood Institute.
- Excellence in Partnerships for Community Outreach and Research on Disparities in Health and Training (Director: Elisa T. Lee) National Center on Minority Health and Health Disparities